FAO Plant Protection Bulletin

A Publication of the World Reporting Service on Plant Diseases and Pests

TABLE OF CONTENTS AND INDEX TO VOLUME NINETEEN

1971



TABLE OF CONTENTS

No. 1 - FEBRUARY

Varietal resistance of cocoa to swollen shoot disease in west Africa, R.H.Kenten and J.T. Legg	1
Mango malformation: symptoms, occurrence and varietal susceptibility, E. Schlösser	12
Recommended methods for the detection and measurement of resistance of agricultural pests to pesticides.	
7. Tentative method for larvae of cattle ticks, Boophilus spp.	15
Outbreaks and new records Brazil, Colombia, Dominican Republic, India	19
Plant quarantine announcement Switzerland	23
News and notes	23
No. 2 - APRIL	
Distribution of <i>Puccinia polysora</i> and <i>P. sorghi</i> in Africa and their pathogenicity on Latin American maize germ plasm, <i>E. Schieber</i>	25
Recommended methods for the detection and measurement of resistance of agricultural pests to pesticides.	
8. Tentative method for larvae of the Egyptian cotton leafworm (Spodoptera littoralis Boisd.)	32
Survival and chemical control of Xanthomonas sesami, H.A. Habish and A.H. Hammad	36
Mango malformation: incidence of "bunchy top" on mango seedlings in West Pakistan, E. Schlösser	41
Outbreaks and new records Greece, India, west Africa, West Pakistan, Venezuela	43
Plant quarantine announcement United States	47
News and notes	48

No. 3 - JUNE

A recent survey of oil palm diseases in Indonesia, P.D. Turner	49
Determination of organophosphorous pesticide residues in olive oil, Siv Renvall and M. Åkerblom	57
Recommended methods for the detection and measurement of resistance of agricultural pests to pesticides.	
9. Tentative method for nymphs of cocoa mirids (Distantiella theobroma Dist. and Sahlbergella singularis Hagl.)	62
Outbreaks and new records India, United States	66
Plant quarantine announcement The Netherlands	68
News and notes	72
No. 4 - AUGUST	
No. 4 - Abdesi	
World citrus problems - V. Nepal, L.C. Knorr and S. Moin Shah	73
A coconut abnormality of unknown etiology in Surinam, P.W. Th. Maas	80
Control by thermotherapy of seed-borne vegetable marrow mosaic virus, Y.R. Sharma and J.S. Chohan	86
Outbreaks and new records El Salvador, Ghana, India, Iraq, Malaysia, Rhodesia	89
Plant quarantine announcements Bermuda, Sweden	93
News and notes	95
No. 5 - OCTOBER	
Evaluation of insecticides for the control of cocoa capsids in Ghana, H. Marchart	97
Elephant grass, an indicator plant for ration stunting virus of sugarcane, S. Matsuoka	110
Outbreaks and new records India, Malaysia	116

News and notes	120
No. 6 - DECEMBER	
Sampling methods for surveys of damage caused by the wheat stem sawfly, G.R. Pesho, J.U. McGuire jr and J.M. McWilliams	121
Seasonal activity and chemical control of pink bollworm, D.S. Gupta and A.D. Khurana	131
Incidence of cadang-cadang in three varieties of coconut trees of different ages, W.C. Price and A.E. Bigornia	136
Notes on the rice root-knot nematode in Laos, P.D. Manser	138
Outbreaks and new records India, Saudi Arabia	140
Plant quarantine announcement Israel	142
News and notes	144

118

Plant quarantine announcements
Libyan Arab Republic, Sweden, United States

Abreu, J.M. de, 19
Abu Yaman, I.K., 140
Aceria sp., olives, Greece, 43
A. oleae, olives, Greece, 43
Adansonia digitata, host of cocoa swollen shoot virus, 1
Agarwala, R.K., 140
Agonischius sp., citrus, Nepal, 77
Agrilus sp., citrus, Nepal, 77
Akerblom, M., 57
Aleurocanthus woglumi, citrus, United States, 67, Nepal, 77
Alternaria citri, citrus, Nepal, 76
Anomis leona, cocoa, Ghana, 107
Aonidiella aurantii, citrus, Nepal, 77
Aonidiella aurantii, citrus, Nepal, 77
Aonidiella aurantii, citrus, Nepal, 77
Aphis gossypii, vector of virus, 86; tomato, Saudi Arabia, 141
Appert, J., 44 Appert, J., 44
Arachis hypogaea, see groundnut
Arbor-vitae, disease, India, 43
Arceuthobium bicarinatum, forest trees, Dominican Republic,
21

Azina cribaria, citrus, Nepal, 77 Aspersillus niger, oil palm, Colombia, 21 A. parasticus, on Planococoides nialensis, 3 Aspidiotus destructor, citrus, Nepal, 77

Bakir, J.N., 90

Bemisia giffardi, citrus, Nepal, 77

B. tabaci, tomato, Saudi Arabia, 141

Bigornia, A.E., 136

Boophilus spp., testing for resistance to pesticides, 15

Botryodiplodia spp., oil palm, Indonesia, 49

Botryosphaeria stevensii, arbor-vitae, India, 43

Brevicoryne brassicae, vector of virus, 86

Brevipalpus californicus, citrus, Nepal, 77

B. obovatus, shaddock, Nepal, 78

B. oleae, olives, Greece, 43

B. olearius, olives, Greece, 43

Cadang-cadang, coconut, Philippines, 136
Calonectria diploa, citrus, Nepal, 76
C. rigidiuscula, cocoa Ghana, 97
Cassida spp., citrus, Nepal, 77
Ceiba pentandra, host of cocoa swollen shoot virus, 1
Cephaleuros virescens, oil palm, Indonesia, 51; citrus, Nepal, 76
Cephalosporium sp., mealybug, 3
Cephus cinctus, wheat, Canada, United States, 121
Ceratocystis paradoxa, coconut, Surinam, 80
Cercospora sp., gambier, Malaysia, 91
C. kiluchii, soybean, India, 66
Cereals, pests, west Africa, 44
Chahal, D.S., 90
Chapot, H., 44
Chatterjee, P.B., 22
Chee, K.H., 90, 116
Chilo partellus, cereals, India, Pakistan, Ceylon, west Africa, 44
Chilo partellus, cereals, India, Pakistan, Ceylon, west Africa, 44
Chilo partellus, cereals, India, Pakistan, Ceylon, west Africa, 44
Chaten L.S., 90

A4 Chohan, J.S., 86, 90
Citrus, disease, West Pakistan, 44; pest, United States, 67; pests and diseases, Nepal, 73
Coccus hesperidum, citrus, Nepal, 77
Cocoa, disease, west Africa, 1; testing for disease resistance, 4; pests, Brazil, 19; research, Ghana, 97; diseases, Malaysia, 116
Cocos nuclfera, see coconut
Cola chlamydantha, host of cocoa swollen shoot virus, 1
C gisantea var. glabrescens, host of cocoa swollen shoot virus, 1
Colasposoma semicostatum, citrus, Nepal, 77
Colletotrichum sp., gambier, Malaysia, 91
C. dematium var. truncata, disease, soybean, India, 66

C. gloeosporioides, citrus, Nepal, 76 Commonwealth Institute of Entomology, 77 Commonwealth Mycological Institute, 76, 140 Conference on Meloidogyne, 144 Coniothyrium fuckelii, citrus, Nepal, 76; persimmon, India, 140
Coriolopsis (Polystictus) occidentalis, forest trees, Dominican Republic, 22
Corticium salmonicolor, citrus, Nepal, 76
C. solani, oil palm, Indonesia, 49
Cotton, pests, India, Brazil, 131
Cucurbita pepo, see vegetable marrow
Curvularia spp., oil palm, Indonesia, 49
Cyperus rotundus, nematode, United States, Laos, 139

Dacus dorsalis, citrus, Nepal, 77
D. oleae, olive, Mediterranean area, 57
Dalpada sp., citrus, Nepal, 77
Dendropemon pycnophyllis, forest trees, Dominican Republic, 21
Diaphorina citri, citrus, Philippines, 46, Nepal, 73
Digest of Plant Quarantine Regulations, 144
Dimytracus sp., olives, Greece, 43
Diospyros virginiana, see persimmon
Dirphia plana, forest trees, Dominican Republic, 21
Distantiella theobroma, testing for resistance to pesticides, 62; cocoa, Ghana, 97
Dysdercus evanescens, citrus, Nepal, 77
D. flavolimbatus, Costa Rica, 20
D. longirostris, cocoa, Brazil, 19
D. mimulus, Costa Rica, 20
D. rufipes, Costa Rica, 20

Earias biplaga, cocoa, Ghana, 107 Echinochloa colonum, nematode, United States, 138, Laos, 139
Eggplant, pest, Iraq, 90
Elaeis guineensis, see oil palm
Elephant grass, indicator plant for virus of sugarcane, 110
Eleussine indica, nematode, United States, Laos, 139
Elsinoe fawcettii, citrus, Nepal, 76
Empoasca decipiens, tomato, Saudi Arabia, 141
Eocader vegrandis, cocoa, Brazil, 19
Eotetranychus sexmaculatus, citrus, Nepal, 77
Etheridge, D.E., 21
European and Mediterranean Plant Protection Organization, 144
Eutetranychus orientalis, citrus, Nepal, 77
Eutetranychus orientalis, citrus, Nepal, 77 Eutetranychus orientalis, citrus, Nepal, 77 Euzophera villora, eggplant, Iraq, 90

FAO Meeting on the Control of Olive Pests (Eighth), 43
FAO Working Party of Experts on the Official Control of
Pesticides: Section B (Specifications), 23
FAO Working Party of Experts on Resistance of Pests to
Pesticides, 15, 32, 62, 120
Fimbristylis miliacea, nematode, Laos, 139
Fiorinia theae, citrus, Nepal, 77
Fomes cajanderi, forest trees, Dominican Republic, 22
F. lignosus, gambier, Malaysia, 91
F. nozius, oil palm, Indonesia, 51
Fusarium oxysporum, oil palm, Indonesia, 50
F. solani, oil palm, Indonesia, 50

Gambier, disease, Malaysia, 90 Ganoderma sp., oil palm, Indonesia, 49 G. lucidum, oil palm, Indonesia, 52 Glomerella cingulata, citrus, Nepal, 76 Glycine max, see soybean Glycyphana horsfieldi, citrus, Nepal, 77

Groundnut, disease, India, 90 Groupement international des associations nationales de fabricants de pesticides (GIFAP), 23 Guava, pest, El Salvador, 89 Gupta, D.S., 131 Gupta, J.C., 89

Habish, H.A., 36
Hammad, A.H., 36
Hatzinikolis, E.N., 43
Helminthosporium sp., oil palm, Indonesia, 49
H. turcicum, maize, Ghana, 26
Hemaspidoproctus cinereus, citrus, Nepal, 77
Heteroderisia rapax, citrus, Nepal, 77
Heterodera rostochiensis, in soil, Venezuela, 46
Hibiscus esculentus, see okra
Hirschioporus abietinus, forest trees, Dominican Republic, 21
Homoptera sp., vector of virus, cocoa, 3

Icerya seychellarum, citrus, Nepal, 77 Imperata cylindrica, oil palm, Indonesia, 50 Information Centre of Tropical Plant Protection, 24 International Plant Protection Convention, 48, 72, 95 International Society for Plant Pathology, 95 International Symposium on Crop Protection, 120 Ips calligraphus, forest trees, Dominican Republic, 21

Juaravia quadrinotata, citrus, Nepal, 77

Kenten, R.H., 1 Khurana, A.D., 131 Knorr, L.C., 73 Kondal, M.R., 140

Legg, J.T., 1 Lepidosaphes beckii, citrus, Nepal, 77 Lipes, J.E., 89 Lycopersicon esculentum, see tomato

Maas, P.W.Th., 80
Maize, testing for disease resistance, 25
Mango, diseases, United Arab Republic, South Africa, 12;
India, East and West Pakistan, 13; West Pakistan, 41
Manser, P.D., 138
Marasmius sp., oil palm, Indonesia, 51
Marchart, H., 97
Martin, G.C., 91
Matsuoka, S., 110
McGuire, J.U., Jr, 121
McWilliams, J.M., 121
Meloidogyne graminicola, rice, Laos, 138
Mikania cordata, oil palm, Indonesia, 50
Moin Shah, S., 73
Monalonion dissimulatum, cocoa, Brazil, Colombia, Ecuador, Peru, Venezuela, Central America, 19
Mycosphaerella sp., citrus, Nepal, 76
Myzus persicae, vector of virus, 86

Nayar, S.K., 43
Nectria flammea, citrus, Nepal, 76
Nene, Y.L., 66
Nipaecoccus vastator, citrus, Nepal, 77
Nothopanus eugrammus, forest trees, Dominican Republic, 22

Oidium tingitaninum, citrus, Nepal, 76
Oil palm, disease, Colombia, 20; Indonesia, 49
Okra, pest, Ghana, 89
Olive oil, organophosphorous pesticide residues, 57
Olives, pests, Greece, 43
Orgyia basalis, cocoa, Ghana, 107
Oryctes rhinoceros, oil palm, Indonesia, 53
Oryza sativa, nematode, Laos, 139
Osorio, J., 46
Otinotus oneratus, citrus, Nepal, 77
Oxycetonia jucunda, citrus, Nepal, 77
Oxypeleurites maxwelli, olives, Greece, 43
Oxyrhachis sp., citrus, Nepal, 77

Panel on Mutation Breeding for Disease Resistance, 24
Papilio demoleus, citrus, Nepal, 77
P. machaon, citrus, Nepal, 77
P. polytes, citrus, Nepal, 77
P. polytes, citrus, Nepal, 77
Pectinophora gossypiella, cotton, India, 131
Pennisetum purpureum, see elephant grass
Persimmon, disease, India, 140
Pesho, G.R., 121
Pestalotionis sp., oil palm, Indonesia, 49; gambier, Malaysia, 91
Phellinus (Fomes) robiniae, forest trees, Dominican Republic, 22
Phillips, T.A., 116
Phomopsis citri, citrus, Nepal, 76
Phyllocnistis citrella, citrus, Nepal, 77
Phyllocoptruta oleivora, citrus, Nepal, 77
Phyllosticta sp., citrus, Nepal, 76
Phytophthora palmivora, cocoa, west Africa, 97, Malaysia, 116
Pinus occidentalis, pests and diseases, Dominican Republic, 21
Planococcoides nialensis sp., cocoa, Ghana, 3
Planococcus citri, cocoa, Nigeria, 3
Plant quarantine, Bermuda, 93, Israel, 142, Libyan Arab
Republic, 118, Netherlands, 68, Sweden, 94, 118, Switzerland, 23, United States, 47, 118
Plutella maculipennis, okra, Ghana, 89
Poa annua, nematode, United States, -139
Poria xantha, forest trees, Dominican Republic, 22
Potato, nematode, Venezuela, 46; Rhodesia, 91
Price, W.C., 136
Prodenia litura, cocoa, Ghana, 107
Pseudoaphycus angelicus, parasite of mealybug, Ghana, 3
Pseudococcidae sp., vector of virus, cocoa, 3
Pseudococcidae sp., vector of virus, Nepal, 77
Pseudorandiii, citrus, Nepal, 77
Pseudorandiii, citrus, Nepal, 77
Pythium spp., oil palm, Colombia, 20; Indonesia, 49

Radopholus similis, potato, Rhodesia, 91

Radopholus similis, potato, Rhodesia, 91 Renvall, S., 57 Review of Plant Protection Research, 48 Rhizoctonia spp., oil palm, Colombia, 20; Indonesia, 49 Rhyacionia frustrana, forest trees, Dominican Republic, 21 Rhynchocoris humeralis, citrus, Nepal, 77 Rice, nematode, Laos, 138; pest, India, 22

Saecd, A., 44

Sahlbergella singularis, testing for resistance to pesticides, 62; cocoa, Ghana, 97

Saissetia coffeae, citrus, Nepal, 77

Schieber, E., 25

Schlösser, E., 12, 41

Selenothrips rubrocinctus, cocoa, Ghana, 107

Septoria sp., citrus, Nepal, 76

Sesame, diseases, research, Sudan, 36

Sesamun orientale, see sesame

Sharma, Y.R., 86

Silva, P., 19

Singh, J.P., 116

Sogatella furcifera, rice, India, 22

Solanum tuberosum var. cedara, see potato

Sorghum vulgare, nematode, Laos, 139

Soybean, diseases and pests, India, 66, 116

Sphaeronema sp., coconut, Surinam, 80

Spodoptera exigua, soybean, India, 116

S. littoralis, testing for resistance to pesticides, 32

Srivastava, S.S.L., 66

Sterculia tragacantha, host of cocoa swollen shoot virus, 1

Stereum sanguinolentum, forest trees, Dominican Republic, 22

Sugarcane, diseases, research in Brazil, 110

Synanthedon sp., guava, El Salvador, 89

Tegonotus sp., olives, Greece, 43 T. hassani, olives, Greece, 43 T. oleae, olives, Greece, 43 Tetranychus sp., oil palm, Indonesia, 49 T. urticae, olives, Greece, 43 Thaumastopeus pullus, citrus, Nepai, 77
Theobroma cacao, see cocoa
Thuja compacta, see arbor-vitae
Tomato, disease, Saudi Arabia, 140
Toxoptera aurantii, cocoa, Ghana, 107; vector of virus, 77
T. citricida, vector of virus, 76
Trametes corrugata, forest trees, Dominican Republic, 22
Tricharia sp., citrus, Nepal, 76
Tristeza, citrus, Nepal, 76
Tristeza, citrus, Nepal, 75
Tristeum sp., see wheat
Tropical Products Institute, London, 106
Turner, P.D., 20, 49
Tyora tessmanni, cocoa, Ghana, 107

United States Agency for International Development, 73 United States Department of Agriculture, Agricultural Research Service, Plant Pest Control Division, 67

Vegetable marrow, virus, India, 86 Virus diseases: citrus bud union crease, Nepal, 76 citrus greening, Nepal, 73 citrus tristeza, Nepal, 75
citrus xyloporosis, Nepal, 76
cocoa mottle leaf, west Africa, 1
cocoa necrosis, west Africa, 1
cocoa swollen shoot, west Africa, 1
cocoa yellow mosaic, west Africa, 1
cucumber green mottle mosaic, India, 87
mango bunchy top, West Pakistan, 12, 41
mango malformed inflorescences, 12
sugarcane ratoon stunting, 110
tomato stolbur, Saudi Arabia, 140
vegetable marrow mosaic, India, 86

Wheat, pest control research, Canada and United States, 121

Xanthomonas citri, citrus, Nepal, 76; sesame, Sudan 39
X. malvecearum, sesame, Sudan, 39
X. maydis, sesame, Sudan, 39
X. rubrilineans, sesame, Sudan, 39
X. rubrisorghi, sesame, Sudan, 39
X. sesami, Sesame, Sudan, 36
Xanthopenthos sp., citrus, Nepal, 77
Xyloporosis, citrus, Nepal, 76

ERRATA

(The line numbers do not take account of titles and headings)

Page 6, Table 3, entry 9:

for ? read T16/613

Page 7, column 1, right, line 2:

page 7, column 1, right, line 5:

page 7, column 1, line 5:

page 7, column 1, line 7:

page 7, column 1, line 7:

page 7, column 1, line 8, 9, 10, 11, 12:

page 7, column 1, line 8, 9, 10, 11, 12:

for 85D/176A) (IMC53 × ?) read 85D/176A 85D/203A

(IMC53 × ?)

85D/204A) 85D/204A J (IMC53 × ?) (IMC53 × ?) T12/113 – 116 Sca. 12 × ? T12/113 and 116 Sca. 12 × ?

Page 8, Figure 3, top: add (210) opposite Progeny code 52 for (80) opposite Progeny code 53 read (890)